

**Perchlorate Steering Committee Meeting
13 January 1998
Environmental Protection Agency
Washington, D.C.**

Initial Meeting and Executive Summary Notes

Purpose: To bring together representatives from various government agencies including the Environmental Protection Agency (U.S. EPA), affected states and regions, the Department of Defense (DoD), Agency for Toxic Substances and Disease Registry (ATSDR), National Institute of Environmental Health Sciences (NIEHS), and others to discuss issues involving the contamination, toxicology, analytical capability, and cleanup technology of perchlorate. The meeting was brought together and chaired by Annie Jarabek (U.S. EPA / ORD / National Center for Environmental Assessment) and Peter Grevatt (U.S. EPA / Office of Solid Waste and Emergency Response).

The Agenda:

- 9:00 Welcome/Introductions (Peter Grevatt, Annie Jarabek)
- 9:15 Scope/membership/organization of the steering committee (Peter Grevatt)
 - 9:45 Historical perspective - summary of activities on perchlorate to date (Major Dan Rogers, Annie Jarabek)
- 10:15 Background on perchlorate toxicity (Dave Mattie, Annie Jarabek)
- 10:45 Break
- 11:00 Updated status report on the toxicity studies (Annie Jarabek, Major Dan Rogers)
 - 11:30 Study evaluation and preparation of the health assessment (Annie Jarabek, Major Dan Rogers)
- 12:00 Peer review of protocols, studies, health assessment (Peter Grevatt)
- 12:30 Lunch
- 1:30 Peer review -continued (Peter Grevatt)
- 2:00 Perchlorate occurrence (Frank Blaha/AWWA)
- 2:15 Regulatory status of perchlorate in drinking water (Mike Osinski)
- 2:30 Analytical protocols/detection of perchlorate in public water supplies (Ken Brown, Ed Urbansky, Kevin Mayer)
- 3:00 Remediation/treatment technologies (Ed Urbansky, Kevin Mayer)
- 3:30 Public/stakeholder involvement and education (Kevin Mayer, Peter Grevatt)
- 4:00 Wrapup/Adjourn (Peter Grevatt)

Those in attendance at the meeting, either in person or via teleconference with their affiliations, phone numbers and E-mail addresses are listed in Attachment 1.

Discussion

Purpose: The Steering Committee is being formed to serve as a discussion forum for

technical issues and as a governmental clearinghouse of information to facilitate accurate accounts of technical issues related to groundwater and soil contamination by the chemical perchlorate. This function was agreed by all in attendance to be of extreme value, particularly as the public concern and Congressional attention increase, in order to effectively enhance communication as part of public citizen and stakeholder involvement and education. Membership is formally limited to government officials (Federal, State, local).

Action Item: A number of additional members were suggested, including: the Department of the Interior, the Bureau of Water Reclamation, Colorado River Nations Alliance, the Native American Consult, and the impacted water authorities. Peter Grevatt is to check with OGC regarding strictures on membership.

Structure: A number of issues were identified as critical areas of concern prior to and during the meeting. It was decided to have an Overall Steering Committee with Subcommittees to address each of these issues. Subcommittees will serve as contact points for inquiries and for development of briefing materials as required. Co-chairs were chosen for these based on their expertise and roles in on-going research or remediation efforts. The following committees were established with the co-chairs as follows. A brief description of the purpose of each committee is included. Other subcommittees will be added as the need arises.

Action Item: Attendees were encouraged to indicate interest in serving on the subcommittees to these individuals.

Action Item: EPA scientists were to identify a co-chair for the Ecological Impact Subcommittee.

Committee Structure:

Overall Steering Committee: To facilitate purpose (as above) and to co-ordinate input among the subcommittees.

Co-Chairs

Mike Osinski, EPA, OW

Kevin Mayer, EPA, Region IX

Major Dan Rogers, DoD, USAF

Toxicology Subcommittee: To keep apprised of status and issues regarding the state-of-the-science (experimental design, endpoint evaluation, dosimetry, inter- and intraspecies extrapolation, etc.) for the testing protocols, study results, revision of the oral RfD estimate

and other aspects pertaining to on-going health risk research and assessment activities.

Co-Chairs

Annie Jarabek, EPA, ORD, NCEA

Dave Mattie, DoD, USAF

Analytical Detection Capability Subcommittee: To keep apprised of status and issues regarding the state-of-the-science (sensitivity and specificity, limitations, interferences, reliability and validation, availability, cost, etc.) for the various analytical methods that may be explored or employed to detect perchlorate in water and soil.

Co-Chairs

Steve Pia, EPA (702) 798-2102

Captain Dave Tsui, DoD, USAF, (937) 255-5150 extension 3183

Treatment Technology Subcommittee: To keep apprised of status and issues regarding the state-of-the-science (site scale and attributes, degree of contamination, effectiveness factors, side effects, criteria based on end use, cost, etc.) for the various treatment technologies that may be explored or employed to address perchlorate in water and soil.

Co-Chairs

Wayne Praskins, EPA, Region IX

Ed Urbanski, EPA, NRML

Jim Hurley, DoD, USAF

Ecological Impact Subcommittee: To keep apprised of status and issues regarding the state-of-the science (surveys, indicator organisms, etc.) for the various research projects and results regarding ecosystem impact.

Co Chairs

Cornell Long, DoD, USAF

TBA, EPA

Peer Review Subcommittee (EPA Only): Peter Grevatt (EPA, OSWER) is to take the lead on coordinating and procuring an external peer review process of the experimental protocols, data, and U.S. EPA (NCEA) reassessment / revised oral RfD.

Status of Health Risk Assessment / Revised RfD: The majority of the morning discussion was devoted to recounting the historical perspective on perchlorate, including the basis for the two provisional RfD estimates (1992, 1995) from the Superfund Health Risk Technical Support Center and the resultant drinking water criteria values, and then the International Toxicology Estimates for Risk (ITER, supported by TERA) Peer Review meeting in March 1997 of a third (and different) RfD estimate. The outcome of that TERA external peer review body (participant list provided) was the determination that the data were insufficient and a recommendation that additional studies be conducted to characterize the potential

health risk of perchlorate. As a result, the USAF and PSG initiated a partnership effort with the objective of obtaining the best scientific information on the toxicology of perchlorate for use in a revised RfD derivation. The development of identification and prioritization process for additional studies, protocol development and review was then described. It is now planned that EPA will conduct a revised assessment and derive a revised RfD based on the new data. This RfD will undergo internal EPA review and then be subjected to an external peer review.

Establishment of a revised RfD is top priority; other assessments (RfC and cancer) of less urgency:

- National Center for Environmental Assessment (NCEA) has the lead on conducting the assessment and providing internal review.
- Review based on new data becoming available from ongoing PSG and DOD toxicological studies.
- Goal will be to recommend a revised RfD and assessment as product for external peer review.
- Internal review to be completed by Aug/Sept 1998.

Office of Solid Waste and Emergency Response (OSWER) has lead on external review:

- OSWER will oversee independent peer review process
- Peer reviewers will be selected from Stakeholder nominations
- Objective will be balance of reviewers with redundancy in requisite areas of competency
- An outside contractor (ERG) will manage review.
- EPA will provide funding for review.
- Target date for external peer review is late Sept 1998.
- NCEA will be responsible to address external peer review comments and document disposition; final RfD assessment then available.

Other Issues and Items of Interest:

- ***Congressional Report:*** An appropriations report from EPA is due in March 1998. NCEA has the lead. Subcommittee reports on activities are due to Annie Jarabek by February 13, 1998.
- ***Occurrence information:*** As part of the Congressional report and as an item of extreme general interest, discussion with respect to what the locations and levels of perchlorate contamination ensued. It was noted that this information is dependent on what analytical methods are used and it was discussed that this issue may be one to add to the tasks for the analytical subcommittee. Kevin Mayer (EPA, Region IX) and David Vanlandingham, (EPA Region VI) promised to provide some information

on efforts in these Regions.

- **Regulatory agenda:** The Office of Ground Water and Drinking Water in the Office of Water will publish in the Federal Register its final Drinking Water Contaminant Candidate List (CCL) in February, as required by the Safe Drinking Water Act Amendments of 1996 (SDWA). Based on comments received on the draft CCL published on October 6, 1997 (62 FR 52193), perchlorate has been added to the upcoming final CCL. The CCL identifies contaminants that will be the source or priority contaminants for additional drinking water research, occurrence data collection, and for selecting not less than 5 contaminants to make a determination of whether or not to regulate by 2001. At this time, the CCL notes that additional data on health effects, occurrence, treatment technologies, and analytical methods are needed for perchlorate before decisions can be made to (1) regulate with a National Primary Drinking Water Regulation, (2) develop guidance and/or a Health Advisory, or (3) do nothing.
- **Analytical Method Review:** Group will evaluate the CDHS perchlorate method using Ion Chromatography (IC) and look at commercial laboratory variability. Methods other than IC may also be evaluated. Developing an EPA standard method might be the ultimate goal of the committee.
- **Treatment Technologies Research:** The American Water Works Association Research Foundation (AWWARF) presented their plan to release requests for proposals that would address treatment technologies sometime in March 1998. Funding (\$2M) is from the Congressman Lewis initiative. AWWA is also looking into an independently funded occurrence study.
- **Environmental Justice:** Jane Williams and Gina Solomon from the NRDC commented by phone on the need to include discussions with the Native American Indians because of the potential impact to their water rights. She also suggested focusing on the issues of the elderly, children and environmental justice because of the potential for disparity in treatment systems accessibility down the road.
- **Agriculture impact:** Jane Williams also raised the issue that one sector that is concerned and not receiving adequate information is farmers that are using contaminated water to irrigate crops and serve feedstock.
- **Information Access:** Jane Williams also raised the issue that the Steering Committee should find a way to formalize the information flow. She praised Region IX for its willingness to engage in conversation and have face-to-face meetings. A website was suggested but it was noted that not all citizens have readily available access to the Internet. It was noted that a website is supported by Toxicology Excellence for Risk Assessment (TERA) that has some of the previous meetings and data protocols on-line. Links to EPA sites and activities were discussed as a possibility. Fact sheets were suggested as a possibility and the idea was received favorably. The Steering

Committee is to give some thought on how to develop this formalized information flow.

Next Steering Committee meeting: The meeting adjourned about 4:00 p.m. The next meeting is to be arranged in mid-February to review draft appropriations report to Congress, other issues. Location is TBA, but Research Triangle Park and Las Vegas were two possibilities discussed. Travel authorization for EPA employees might be the limiting factor.

Attachment 1

**01/13/98 Perchlorate Steering Committee Meeting
List of Attendees**

Attended in Person

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